

Patent Claims

What is claimed is:

- 5 1. A device for filtering a medium;
 - 1.1 having at least one membrane disk;
 - 1.2 having at least one turbulence disk;
 - 1.3 the two disks being mounted so they are rotatable;
 - 1.4 the two disks being positioned as follows:
 - 10 1.4.1 their axes of rotation run essentially parallel to one another
 - 1.4.2 they overlap in a top view
 - 1.4.3 they are positioned close next to one another in the axial direction,
so that the turbulence disk generates a turbulence in the region of
the affected lateral face of the membrane disk;
 - 15 1.5 the membrane disk being connected to a hollow shaft so that they
rotate together;
 - 1.6 the hollow shaft being conductively connected to a cavity in the
membrane disk;
 - 1.7 the two disks being able to be driven in the same rotational direction;
 - 20 1.8 the device is characterized in that the diameter of the membrane disk
is sufficiently smaller than the diameter of the turbulence disk that
the difference of the peripheral velocities of the two disks on the
connection line between their axes of rotation is at least
approximately equally large at every point in the overlap region.
- 25 2. The device according to Claim 1 having the following features:
 - 2.1 multiple membrane disks and multiple turbulence disks are provided;
 - 2.2 the disks are positioned in such a way that one disk of each species
engages in the intermediate space between two others of the
30 neighboring disks of the other species.
3. The device according to Claim 1 or 2,

characterized in that the turbulence disk is also connected to a hollow shaft so that they rotate together and has a cavity which is conductively connected to the cavity of the hollow shaft.